

#2033 - 12161

609

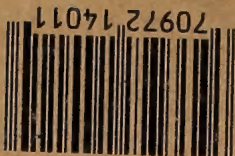
100 Sheets

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76 mm x 127 mm

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Roaring Spring • Top Scholar—Roaring Spring, Pa. 16673

12033 - 1 Sept, 1986
AC, Sherel Goodrich,
Curtis McArthur, and
Elizabeth Mese.

Wasatch Co., Utah
Open parkland with
hardening conifers

Wolf Creek Summit,
32 km. airline east of
Heber City. Elev. 2800m.

Twp. 1 N., R. 10 W., S. 16, Uinta
Special Meridian. Plants
3-7 dm tall, with

several to many slender
~~erect~~ ^{erect} stems from the base
and sprouting from the
base. Flowers 8-16
per head. ↓ V. 609

12033 contd.

Artemisia spiciformis Osterh.



Artemisia spiciformis (C)

2034. 1 Sept. 1986. AC,
Sheryl Goodrich, Duane
McArthur, and Elizabeth
Neese. Duchesne Co., Utah.

Open slopes along the
West Fork of the Duchesne
River, 17 km. Northwest
of Taboria, Twp. 1 N.,
R. 9 W., S. 26. Menta

Special Meridian. Elev
2250m. Plants 4-10 dm.
tall, the inflorescences
standing above the
vegetative parts.

Flowers 3-7 per head.
Crushed leaves with a sweetish
camphor-like aroma.
Artemisia tridentata Nutt.

var. *vaseyana* (Rydb.) Boivin
det. David L. Gray. (C)

12035 1 Sept 1986. AC,
Sheryl Goodrich, Dr. Vincent
McArthur, and Elizabeth
Heese. Same place as 12034.

Scattered individuals in
a stand of *A. tridentata*
var. *vasqueziana*.

Plants 1.5-2.5 m. tall,
irregularly rounded,
the inflorescences not
notably surpassing the
vegetative parts. Flowers
5 per head, but blooming
later than var. *vasqueziana*.

Few apparent intermediates.

Artemisia tridentata Nutt.

var. *tridentata*

Big regel. (2)

12036 - 1 Sept. 1986. AC,
Sherel Goodrich, Durant
McArthur, and Elizabeth
Neese. Open gentle slopes
at the lower edge of
the piñon-juniper zone
5 km. south of Tabiona.

Twp. 25., R. 7W., S. 17,
Uinta Special Meridian,
Elev. 2075 m. Plants
4-10 dm. tall. Heads
globose, with (3)4-5 flowers.

Artemisia tridentata Nutt.
var. *wyomingensis* (Boettl. & A. Young)
Welsh

12037 - Sept. 1, 1986. AC,
Sheryl Goodrich, Durant
McArthur, & Elizabeth Neese
In thin pockets of soil
on flat sandstone rocks
at the lower edge of
the piñon-juniper
zone. Ca. 232 km. west
of Duchesne, Duchesne Co.
Utah. Elev. 2000 m.

Twp. 35., R. 8W., S. 23.
Uinta Special Meridian.
Rays 5-10, yellow ✓

Helianthella microcephala
(A. Gray) A. Gray

Helianthella microcephala (6)

12038-1 Sept. 1986. AC,
Sherel Goodrich, Durrant
McArthur, & Elizabeth
Nesse. Wasatch Co., ~~Utah~~
Utah. Dry meadow-
swale in Strawberry
Valley, 35 km. southeast
of Heber City. Elev. 2300m.
Plants mostly 4-8 dm.
tall. Flowers (8-) 10-13
per head.

Artemisia cana Pursh ✓

Artemisia cana (6)

12039. 2 Sept. 1986. AC.

Sherel Goodrich, Durant McArthur,
Elizabeth Neese + Leila Shultz.

Juab Co., Utah. Sandy
places in sagebrush.

- rabbit brush communi-
ty ca 3 km south
of Tuba Dam, ca 45 km. airline
east of Delta. Twp. 17 S., R. 2 W.
Elev. ca 1600 m.

Ray 6-13, yellow. Disk
very dark.

Helianthella microcephala
(A. Gray) A. Gray

(5)

Helianthella ~~micro~~

120410 - 2 Sept. 1988 AC,
Sherel Goodrich, Durant McArthur,
Elizabeth Neese + Leila Shultz
Jual Co., Utah.

Same place as 12039.

Flowers 3-5 per head.

Artemisia pygmaea
A. Gray



3-4
Artemisia pygmaea (6)

12041-2 Sept. 1986. AC,
Sherel Goodrich, Durant McArthur,
Elizabeth Heese & L. LaShelle

Same place 12039.

Flowers 4-6, yellow at ~~first~~
first, soon fading nearly
white.

Chrysothamnus parryi
(A. Gray) Greene
var. *affinis* (A. Nels.)

3'

Chrysothamnus
Chrysothamnus

7)

12042. - 2 Sept. 1986. AC,
Sherel Goodrich, Duane & Al.
Arthur, Elizabeth Neese, &
Leila Shultz. Same place as
12037. Flowers 4 per head.

Chrysothamnus viscidiflorus
(Hook.) Nutt.

Var. *puberulus* (D. C. Eaton) Jepson

Ch. merid. var. 4 fls
(4)

12043 - 2 Sept. 1986 AC,
Sherel Goodrich, Duran McArthur,
Elizabeth Neeset Leila Shultz

Clay soil amidst sandstone
rock on open slope in
pinon-juniper zone.

~~Pavant~~ Pavant Range, ca 25
km. airline south of ^{15-11 more} Millard Co., Utah
Twp. 24 S, R. 4 $\frac{1}{2}$ W., S. 4.
Elev. ca. 1800 m.

Shrubs up to ca 4 m. tall.
Flowers 4-7 per head.

✓
Artemisia arbuscula Nutt.

4-7 (6)

Art. arb.

12044 - 2 Sept. 1983

Same place as 12043 -

Heads yellow. Rays mostly 8.

Gutierrezia petradoria
(Welsh & Goodrich) Welsh

⑦

⑧

12045 2 Sept 20, AC, Sherel
Sandrich, Durand McArthur, Elizabeth
Senior Co., Utah. On ^{Yucca, &}
^{Lo. 7a}
^{SK 112}

phylite outcrops in
oak-pinyon-juniper
zone along Gros Creek,
16 km. due south of
Kanosh, Twp 25 S,
R. 5 W., S 35. Elev.

2200 m.

Some plants distinctly
gray, others nearly green

Artemisia carruthii Wood

Ant. Carruthii (1)

12046-3 Sept. 1986. AC, Storer
Goodrich, Elizabeth Neese, and Leila
Shultz. Millard Co., Utah.

Windblown sandy soil, in
Pine Valley, ca 65 km. w. of
of ~~Mt~~ Milford, shortly west
of the WaKa Mts. Twp. 24S.
R 16W., ca. S 29. Elev.
ca 1650 m. Densely branching
shrubs 6-12 dm. tall. Flowers
yellow (4) 5 per leaf
Achenes glabrous.

Chrysothamnus nauseosus (Pallas)
Britton
var. *turbinatus* (M. E. Jones) Blake

Chr. n. turbinatus ⑥

12047 - 3 Sept 1966 AC,
Shorel Goodrich, Elizabeth
Neese, Heila Shultz. Sandy
soil in Pine Valley, ca
65 km. west of Milford,
and shortly west of the
Wa Wa Mts, Millard Co., Ut. 4.
Twp 25S, R. 16W. S. 4 or 5
Elev. 1600m.

Shrubs 2-5 dm. tall.
Flowers yellow, 4 or 5 per
head.

Chrysothamnus Greenei (A. Gray)
E. L. Greene

Ch. Greene (6) 2.5 dm.

12648 - 3 Sept. 1976. AC,
Sherel Goodrich, Elizabeth Neese
and Leila Shultz.

Millard Co., Utah. In and
along a gravelly wash in
sandy ~~desert~~ desert. Pine Valley,
ca 65 km west of Milford, and
shortly west of the Wawa Mts.
T. 24S. R. 16W. S. 29

Elev. ca 1600' m.

Shrubs 6-20 dm tall.
Flowers yellow, 4-6
per head.

Lepidospartum latissquamum

S. Wats.

Lepidospartum (?)

12649. A.C. 7 Sept 1986
Elko Co., Nevada. Gravelly
gravelly northeast slopes
overlooking the Salt Lake
Desert, ca 30 km. south
of ~~Wendover~~ Wendover,
and 17 km. northwest
of White Horse Pass. Elev.
ca. 1500 m. Twp. 30 North,
R. 70 East. Elev. ca. 1550 m.

Low shrubs, mostly 2-4 dm.
tall. Leaves shiny
yellow-green.

Artemisia nova A. Nels. ✓

7475

533

Artemisia nova (L.)

12050. AC 7 Sept 1986

White Pine Co., Nevada.

Gentle open west slope in
broad valley between the
Schell Creek Range and the
Egan range, ca 26 km.
north of McGill. Elev.

Twp. 21 North, R 64 E.

Elev. ca. 1800 m.

Shrubs 4-12 dm. tall.

Artemisia tridentata.

Nutt.

var. *wyomingensis* (Beetle + A. Young)

Welsh

812.4

A trid wyom.

(6)

12051. - 2. Co. Elsworth. Vase
20 September 1936. Salt
Lake Co., Utah. Openings
in brushy (Quercus) slopes
at the north base of Mt.
Olympus, just south of
Keffi Canyon, at the
southeast margin of
Salt Lake City. Twp. 2 S.,
R. 2 E., S. 6.

Elev. ca 1500 m.

Low plants, 2-4 dm tall,
with a typical spiny sage-
brush odor. Growing with
#12052,

but sharply distinct at this point.

Artemisia arbuscula Nutt.

Artemisia arbuscula

12052. *A. arbuscula* Nutt.
20 September 1986. Same place
as 12051. Plants ca 6-10
dm. tall, flat-topped,
with a sweetish,
camphor-like odor.
Growing with # 12051,
A. arbuscula, but
sharply distinct at
this point.

Artemisia tridentata Nutt.
var. *vaseyana* (Rydb.) Boivin

2033. AC. Flora, 23 April 87
Newberry Co., South Carolina
In thickets on slopes overlooking
the western Piedmont,

~~Elev.~~ ca 150m. ^{ca 33km west of} Winnsboro.

Plants colonial, with rather
short stems. Fragile
rhizomes as well as
pea-sized bulbs. Flowers
lavender-purple.

Oxalis violacea L.

Oxalis violacea (2)

12054 Acl Shen - 26 April 1981

Marion Co., Florida

In oak-magnolia forest, Ocala
National Forest, ca. 4

~~2~~ km. east of Lyne.

Erect slender ^{erect} shrubs

ca. 3 m. tall. Flowers white

Vaccinium arboreum Marsh.

✓✓

Vaccinium arboreum 4)

12055 - A C + Shen

Levy Co., Florida.

Under *Quercus laevis*

etc. on sand-hills

between Williston and Bronson,

ca. 10 km. east-southeast of

Bronson.

Dense, bright green shrubs
mostly 1.5-2 m. tall.

Leaves ericoid, alternate or
subopposite. Flowers fleshy,
slight red, yellowish.

Ceratiola ericoides Michx.



Ceratiola ericoides

5210
420

12056 - Sheryl Cronquist
30 April, 1987.

Tyler Co. Texas.

Under open oak-pine
woods along the high-
way.

Elev. ca 1000 m.

Sandy soil. Plants mostly
single-stemmed and
biennial, occasionally
becoming a second time and
then with 2 stems.

Bracts white. Corolla first
pink, but soon fading to white.

37 m. w. of page.

28.1

30 m. E. of

354 12056

2nd Dec 1986

Sheryl

(5)

12036. 4000 ft. 30 April 1957
Polo Co. 7400 ft. In brush
under open oak-pine woods along
highway 190, ca. 37-38 km
east of Livingston, Elev.
ca. ~~1000~~ 1004 m.

Plants inodorous, mostly
biennial and single-stemmed,
sometimes biennial or second
time root producing 2 stems,
leaves linear-lanceolate, white,
Flowers 20-30 mm. diam. at
base, light pink, corolla
white.

Hymenopappus artemisiifolius
DC.

Hymenopappus artemisiifolius (L.)

12077 May, 1977, 4000 ft
Polk Co., Georgia

In mixed oak-pine woods
surrounding stream ~~area~~
ca. 1/2 km below study lake

Shrub ca. 40 cm

Stems, leaves, and fruit
marked with yellow streaks.

Leaves glabrous, smooth
beneath. Fruit 1.5-2.0 cm,
orange.

Krigia biflora (Walter) ~~S. F. Blake~~

S. F. Blake ✓

330.3 ✓

Krigia biflora (2)

12058 Ac + Kaye + Thorne
4 June, 1987. Millard Co., Utah.
Along the receding margin of
Scipio Lake, ca. 27 km. by road
(U.S. 50) northwest of Salina,
Sagebrush zone. Elev. 1800 m.
Twp. 20 South, Range 2 West,
Section 2.

Utricularia vulgaris L.



Utricularia vulgaris (5)

12059. AC & Kaye H. Thorne.

9 June, 1987. Kane Co., Utah.

On rocky (sandstone) northeast
slope of Paria Canyon, ca. 2 km
southeast of old Paria, and 65
km. east of Kanab.

Township 41 South, Range
1 West, near the corner of
Sections 17, 18, 19, and 20.
Elev. ca. 1450 m.

Sagebrush zone. Taprooted
perennial, usually with
several stems. Flowers
rich pink. Type locality
of *Cirsium nidulum* M.E. Jones.
Cirsium arizonicum (A. Gray) Petráň

6. incl 3 sheet 1, 3 sheet 2

Cirsium arizonicum

12060 AC & Kaye H. Thorne

9 June, 1987. Kane Co., Utah.

Same place as 12059

Rays 13-28, lavender,

(Do not write - typehead, of course.)

Erigeron utahensis A. Gray
var. *utahensis*



Erigeron utahensis (3) 6

12061 AC + Kaye H. Thorne.

9 June, 1987. Kane Co., Utah

Sandy clay floodplain of Paria
River, ca. 1+ km. southeast of
old Paria, and 65 km. east of
Kanab. Sagebrush zone.

Township 41 South, Range 1 west,
Section 18. Elev. ca. 1450 m.

Tapered, many-stemmed
perennial. Heads yellow.

Rays 7-13.

Chrysopsis villosa (Pursh) Nutt
sens. lat.

Chrysopsis nuttalliana

12062 - AC + Kaye H. Thorne.
9 June, 1987, Kane Co., Utah.
Same place as 12061.

Only one plant seen.
Flowers dull purple.

Orobanche ludoviciana Nutt
var. *cooperi* (A. Gray) Beck



E

Orobanche ludovic (1)

12063. AC & Kaye H. Thorne.
10 June, 1987. Juab Co., Utah

Gravelly roadside banks in the
sagebrush zone along Interstate
Highway 15, ca. 38+ km by
road south of Panguitch.

Sagebrush zone. →

Taprooted biennials up to 1.5 m
tall, single-stemmed, Heads white
to pale lavender. Two heads
per plant. 174 and 255 flowers

Township 10 South, Range 1 East,
Co. Section 33.

Corolla-throat longer than the lobes.
Cirsium neomexicanum A. Gray

9, incl 3 sheet 1, 3 sheet 2, 3 sheet 3

12064 24 Aug., 1987

A.C. + Eric S. Lamont

Rocky, bushy open slopes above
timberline on the north^{east} side
of Mt. Washington, Presidential
Range,

New Hampshire, shortly
above the 5-mile point on
the toll road. Elev. ca. 1450 m
Part of an apparent hybrid
swarm between *B. glandulosa*

and a dwarf alpine phase of
B. papyrifera

Plants collected.

Betula "X minor (Tuckerman) Fern."

Betula "minor" (1)

12065 24 Aug. 1957.
AC. 15 mi E. Lamsut.
Same place as 12064.
Fls. ca 1 m tall.

Betula glandulosa Michx.
var. *glandulosa*

B. glandulosa (1)

12.11.1957. No. 1211 = 1211.

24 Aug. 1957.

Same place as 1201.

Plants ca 1 m. tall.

~~1211~~

Part of an apparent hybrid
swarm between *B. glandulosa*
and a dwarf alpine phase of
B. papyrifera.

Betula "X minor (Tuckerman) Fern."

Betula minor (Tuckerman) Fern. (1)

12067 Logan Co, Colo.

Succles along roadside
in prairie ca 19 km.
west of Sterling.

Single-stemmed, taprooted
annuals up to nearly 1 m. tall,
with sticky juice.
Bracts white-margined.
Petals ^{white,} appendages 4
(one missing from what
would be a symmetrically
disposed set of 5).

Euphorbia marginata Pursh

Euphorbia (2)

12067

12068. 5 Sept 1967.

Grant Co., Utah.

Sandy slopes along the
Colorado River, ca 16 km.

upstream from the
road crossing just north
of Hrab. Twp. 25 S, R. 22 E.

S. 40° E. Elev. ca. 1250m.

Typical annual, up to
nearly 2 m tall, large plants
commonly with a few
very long branches.
Petals white.

Lepidium latifolium L.

Lepidium ✓

9618

(5) ✓

17069 5 Sept. 1987. ~~Utah~~
Grand Co., Utah. Disturbed
granitic substrate along
the road on the north
end of the La Sal Mts.,
overlooking the upper end
of Castle Valley, ca 20 km
km. airline east of Moab.
Twp. 26S., R. 24E., ca. S. 5.
Elev. ca. 2300 m.

Perennial with several
loosely clustered stems,
spreading by creeping
roots. Flowers rather
pale lavender, some
plants white.

Mirabilis linearis (Pursh) Steiner!

missed 3 7-11 ✓

12510 - Sept 87.

Sample # 1012069.

~~Perennial biennial up to~~

~~1.5 m. tall, freely branched
and many-headed. The
stem becomes stout,
sometimes 5 cm thick.~~

Heads \pm numerous, lac-
eolar-purple. Heads shining
brown, 6-7 mm long,
resistant to wetting.

Perennial up to 1.5 m. tall, spreading or
creeping; stem freely branched

Cirsium tracyi (Rydb.) Petrak

(3 incl 1 st. 1 st. 2, 1 st. 3)

12071 - 5 Sept 67. Shrub, thick
brushy area, slopes of the
La Sal Mts., shortly north
of Horse Creek. Twp. 26S,
R. 24E., ca. S.33.

Shrub ca 2300m.

Keys 17-23, 14-20 mm
long, bright lavender-
purple.

Asclepias speciosa
var. *gayeri* A. Gray

Asclepias speciosa Twp. 26S

12072 5 Sept 67.

^{Santa Fe}
~~Grand~~ Co., Utah meadows
at edge of spruce forest
on the west slope of the
La Sal Mts., ca 4 km. by
road west of Geyser Pass.

Elev. ca 3000 m.

Plants up to 1.5 (or nearly
2) m tall; single stemmed,
evidently short-lived,
but no separate basal
rosettes seen. ~~Flowers~~
Stem strict, erect,
much short, ascending
pedunculate branches.
Flowers white to pale

Cirsium

Cirsium scopulorum
(Greene) Cockerell

Cirsium

(4)

73.9

12073 5 Sept 1987

San Juan

~~Grand~~ Co. Utah. Edges of
spruce forest on the west
slope of the La Sal Mts.,
ca 3 km. west of Harper
Pass. Twp 27 S., R. 24 E.

Elev. ca. 3000 m.

Senecio serra Hook.

var. *admirabilis* (Greene)

A. Nels.

✓

✓

✓

✓

Senecio admirabilis; 367

2074 - 6 Sept 1961
San Juan Co, N.M. Shrubby
about 1/2 mi overlooking
~~the road to the south~~
ca 45 km south of Mont.
Twp. 29 S, R. 23 E, S. 34.
Elev. ~~1700~~ 1800m.
Shrubs 1-1.5(-2) m. tall.
Flowers yellow
Hook and Gadder Gulch

✓
Chrysothamnus nauseosus
(Pursh) Greene
virgata (Nutt.) H. M. Hall

✓
Chrysothamnus 5, 963

12075, 6 Sept 1987

~~Grand~~ Co., Utah

San Juan

Same place as 12074.

Annual, up to 1 (-1.5) m. tall.

Rays ~~yellow~~ ~~11-15 (-17) yellow~~

11-15 (-17) yellow, 2.5-3.5

cm long. Disk dark, with
a white-bearded center.

Helianthus petiolaris Nutt.

(the fallax phase)

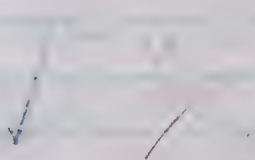


H. petiolaris



12076 6 Sept. 1982,
Same place as 12075,
Annual. Flowers 5-6,
pink-lavender.

Stephanomeria exigua
Nutt.



Stephanomeria exigua (5)

12037 6 Sept 87.

Same place as 12034.

Stems numerous, clustered
on a taproot. Rays

10-17 yellow, 10-14 mm long.

Chrysopsis villosa (Pursh) Nutt.,
sens. lat.

C. villosa

(5)

12078 6 Sept 1957.

Same place as 12074.

Plants up to 8 dm tall.

Rays 19-27, rich blue-lavender, varying to

sometimes pale blue-lavender,
10-14 mm long.

Machaeranthera linearis
Greene

✓

✓

⑤

Machaeranthera canescens

12079. # 6 Sept 87.

San Juan Co. Utah
Open, gravelly, prairie
slopes in aspen - spruce zone,
above the ridge pass
between Indian Creek
and Johnson Creek.

Cirsium centaureae (Rydb.)

K. Schum. (4) ✓

Abajo Mts, southwest of
Monticello, Co. Twp 34 S,
R 22 E.

Elv. ca 2900 m. Perennial with
1- several stems together,
spreading by deep-seated
creeping roots. Flowers dull
yellowish. *Cirsium centaureae* Rydb.
B4611

12080- 7 Sept 1987
San Juan Co., Utah
Rocky sandstone slopes
and washes in piñon-
-juniper community,
overlooking Burch Canyon,
7.5 km. by ascending road
north of junction with
Utah road 275, east of
Natural Bridges National
Monument. Twp 36S, R. 18E.
Elev ca 2100 m. Plants
rhizomatous and colonial
leaves glaucous. Ray (8) 10-14,
very pale lavender, 8-11 mm long.
Aster glaucodes S. F. Blake

Aster glaucodes (5)

12081 - Sept. 11, 1957

Nye Co., Nevada.

Dry alkaline meadows
just east of Deathwater.

Twp. ~~12~~ 14, R. 56E., S. 6. 7.

Elev. 1700 m.

Rays 10-17, yellow,
7-10 mm long.

Haplopappus lanceolatus
(Hook.) Torr. & A. Gray

958

10-17

7-10

Haplopappus lanceolatus (5)

12082 Sept 11, 1939

Moj. Co., Nev. Alkaline dry
meadows just west of

Duckwater. Temp. 84.,

R. $55\frac{1}{2}$ E., S. ~~30~~³¹ Elev.

1700 m. Taprooted.

Biennial 7-12 in. tall.

Flowers pink-lavender or
pink-purple to nearly
~~white~~ white

Cirsium mohavense
(Greene) Petrak

3, incl 1 sheet 1, sheet 2, 1 sheet 3

Cirsium mohavense

12083 Sept 14, 1937
Mys Co., Hawaii same place
as 12082. Shrub up to
ca. 7 dm tall. Flowers
5, white. Involucral
bracts only poorly
aligned vertically

Chrysanthemum albidus
(M.E. Jones) Greene

Chrys. (5)

12084. Sept 2, 1987
Mono Co., California
Basaltic cliffs and coarse
talus - 1 km. easterly

~~along the road~~
~~(California 168) south~~

from ~~Washoe~~ Westgard
Pass ^{in part} along the California
road 168, south end of
the White Mts. Twp
Range

Elev. ca. 1950 m.

Hesperomys

12084.

Sept 12, 1967

Tuxo

Mono Co., Calif. on

granite cliffs and coarse

talus in Piute Canyon,

ca 4 km. easterly

from Westgard Pass

along California road

168.

Twp. 7S., R 35 or 36E.

Elev. ca. 1950 m.

Freely branched, aromatic
shrubs up to ca. 1 m. tall.

Twigs glutinous. Leaves

punctate. Heads discoid,

yellow, with 20-25 flowers.

Haplopappus cuneatus A. Gray

(5)

209.1

12085- 12 Sept 1987.
Meadow to hill, open slopes
and meadows in the high
Campito Meadows,
Mts. near the Patricio
Lake, ca 33 km by road
north of Westford Pass.
Elev. ~~3200 m~~ 3209 m.
Plants
several-stemmed from the
base, freely branched, up
to about 5 dm tall.
Twp. 55., R. 35 E., 34 E

Artemisia halliana Cronq.

✓

Snowflake

(7)

210.2
231.3

12086 - Sept 12, 1987

Mono Co., Calif. Same place
as 12085. A single shrub
ca. 4 m tall, growing
with the ~~short-leaved~~
~~species of Artemisia~~
~~atrovirens~~ A. holleana

Artemisia cana Pursh



Artemisia cana (4)

12081 - Sept 13, 1987
Mono Co., Calif. Open, rocky
(granitic) ~~slopes~~ ^{mesquite & mesquero}
~~slopes~~ 0.6 km east of
Tioja Pass, west
of Lee Vining, in the
Sierra Nevada. Twp 1 N.,
R. 2 E., S. 30. Elev. 3000 m.
3-5 dm tall
Freely branching shrubs
with several slender
stems from the base.
Flowers ca. 8-13 per head

Artemisia rothrockii A. Gray

Artem. H. 1

Artemisia rothrockii (5)

12088 - Sept. 13, 1987.
Mono Co., California.

Rocky flat with scattered
large pines ca 2 km
~~west~~ by road easterly
from Saurra Pass in
the Sierra Nevada.

Twp. 22E., R. 5 N.

Elev. ca. 2700 m.

Freely branching shrubs
up to ca. 7 dm tall

Artemisia cana Pursh

G. Tolsted ⑤

12089 - 15 Sept. 1987. Harney
Co., Oregon / along seeps
flaming spring area at
the southwest base of ~~the~~
~~Steens~~ Steens Mt.,
~40 km. by road northwest
of Fields Trip. 35 S. R. 32 E.
S. 25 E. Ele. ^{1400 m.} ~~ca. 1250 m.~~

Tapered, single-stemmed
herb, mostly 1-2 m tall,
shortly and narrowly
branched upwards, or
longer plants with some
longer ascending branches
brown farther down. Heads
small, clustered.

(Just south of mouth
of 3-mile Creek)

To next page

12039 - Calif

Involucral bracts
much closely appressed,
yellowish leafy, a prominent
gray-white glutinous
dorsal ridge, and a
short abruptly
~~or~~ spreading-ascending
spine. Plants rather
soft for a thistle, with
hollow stem.

3, incl 1 sheet 1, 1 sheet 2, 1 sheet 3

Cirsium douglasii

12089 - 13 Sept. 1987. Harney
Co., Oregon Along seepy
flowing spring area just
south of the mouth of
^{south west base of Steens Mt.,}
3-mile Canyon, 40 km. by road
northwest of Fields. Twp.
35 S., R 32 E., S. 25. Elev.
1400 m. Taprooted ~~single-stemmed~~
single-stemmed biennial,
mostly 1-2 m. tall, shortly
and narrowly branched
upwards, or larger plants
also with a few lower,
ascending branches from
farther down. Heads small,
obturberate. Involucral
bracts with closely
↓ to next page

appressed, greenish body,
a prominent, gray, white,
glutinous dorsal ridge,
and a short, abruptly
spreading spine.
Flowers lavender-purple.
Plants hollow-stemmed
and rather soft for
a thistle.

Cirsium douglasii DC.

(3, incl 1 sheet 1, 1 sheet 2,
1 sheet 3.)
Cirsium douglasii

12090 - 19 Sept 1987.

Mohave Co. Arizona, with
scattered sagebrush on
gentle, gravelly west slope
ca 85 km by road south
of Ft. Huachuca, Utah.

Twp. 36 N., R. 11 W., ca. S. 34.

Elev. ca. ¹⁶⁵⁰ ~~1600~~ m.

Soft half-shrubs ca. 4-6

dm. tall. ~~Low~~

13 to ca.

Involucres white to pink.

Rays yellow, mostly 8,

11-16 mm long.

~~North of Pecos Mts~~

North-east of Pecos Mts.

Senecio longilobus Benth.

207

Senecio longilobus (6)

12091-19 Sept. 1951.

Mohave Co., Arizona. With
scattered sagebrush and
Pinyon-juniper on rocky
(limestone) slopes, shortly
below the head of Pigeon
Canyon, Arizona Strip,
ca 120 km. by road south
of St. George, Utah.

Plants loosely colonial
by creeping rhizomes.

Temp. ~~33.3~~³³ H., R. 12 W., S. ~~7~~⁷.

Elev. ca. 1700 m.

Artemisia carruthii A. Wood

30.3

Artemisia canch. (C)

12092 - 17 Sept 1987
Mohave Co., Arizona

Roadside in sagebrush
zone, quartzite substrate,
ca ^{1.30} ~~1.5~~ km by road S. of
St. George, Utah, on the
road to Mt. ~~Dellenbaugh~~
Dellenbaugh, ca 3.5 km
south of the turn-off to
Pigeon Canyon.

Trays ³³ ~~34~~ H. E. 12 W. S. 4
Elev. ca 1700 m. ~~831035.~~

Perennial, spreading by
deep-seated creeping roots.
Plants stout but low,
only 2-6 dm. tall.
Flowers rich carmine to
almost crimson
to next peak

Cirsium Ochrocentrum
A. Gray

✓

37.9

35.7

Cirsium .

4 incl 2 sheets 1,
2 sheet 2

13 June - 25 June, 1988

2. Mongolia - Gornoye

USSR, Gorno-Altaysk

Autonomous Region. Foothills of
the ~~Altai~~ Altai Mts, ca. 50-60 km.
southwest of Gorno-Altaysk, in
the valley of the Sema River.
In dense, low, herbaceous
vegetation under scattered
trees of *Betula pendula*.

Elev. 900 m.

Plants with slender rhizomes
and white flowers

Cerastium pauciflorum Steven

Cerastium pauciflorum

12094. 25 June 1988

U.S.S.R. A.C. et al.

Same basic localities as

12093

Open, south-facing
Schistose cliffs at outcrops
at 700 m. elev. Betula
pendula the dominant tree
in the area

Freely branching shrubs up to
ca 1 m. tall. Flowers white

Spiraea trilobata L.

Spiraea trilobata

(2)

12095 - 25 June, 1988.

~~12095 - 25 June, 1988.~~

A.G. et al.

Same place as 12094

Open, south-facing schistose
shales etc

Eritrichium rupestre ✓
(Pallas) Bunge, sens. lat.
(*E. altaicum* M. Popov)

Eritrichium

12096 - 25 June 1962

Same place as 12095

Stellaropsis altaica
(Thieb.) Pobed.

Flowers pinkish in bud,
but the limb white
on top when open

Stellaropsis

Stellaropsis altaica (Thieb.) Pobed.

12077 - 25 June, 1988.

Same basic locality as 12095,
AC et al.

Open, south-facing, schistose
slopes, Elev. 600m.

Stems clustered or a little
flowers deep blue base.

Dracocephalum ruyschianum
L.

Dracocephalum

12098 2.2.2011 17.23

Acacia (Corymbosa)

Intensive forest, Foothills
of the Altai Mts. 65°

Forest

In woods (many Betula) on
west-facing rocky (granite)
slope overlooking the
Khatyn River. Elevation 450
near Choma

Spring forest ca 2 m. tall

USSR. Same as 12098. On open cliff-top on west-facing slope in forest of *Betula pendula* (some *Pinus sylvestris*).

Elev. 500 m.

Flowers bright yellow

12-098 26 June 1988

AC et al USSR

Same general place as

12-098 - Open, west -

facing rocky (schistose)

slopes.

Flowers deep blue

Delphinium laxiflorum DC.



Delphinium

12101 26 June, 1988 AC
et al. Same general
place as 12012. but in
moist, mossy places on
~~large~~ ledges along the
river valley.

Flowers white

Saxifraga sibirica L.

✓

⑤

12102 26 June

AC & Margarita Branova
USSR. Gorno-Altaysk
Autonomous Region,
Valley of the River
Kuba, ca 10 km south
of Chomal, and 75 km
south of Gorno-Altaysk,
Elev. 600 m.

Moist meadow near the
stream. Flowers
~~sky~~ sky-blue.

Myosotis caespitosa Schultz

Myos

26 June, 1988

AC & Margarita Baranova

USSR, Gorno-Altaysk

Autonomous Region. Foothills
of the Altai Mts, Open,
east-facing slope

ca 14 km south of
Chemel, and ca 20 km

South of Gorno-Altaysk

Valley of the River Kuba
Elev. 600 m.

Stems clustered on a ~~+~~ short
rhizome-caudex. Flowers blue

Polemonium caeruleum L.

12/11/ - 26 June 1953
A. C. 11

same place as 12103

Delphinium laxiflorum
DC.

✓

Delphinium (2)

1 - 26 June, 1988
Be et al

Cotoneaster melanocarpus
Fischer

(1)

21
Dumetia

2-19-03

Patrinia intermedia
(Hornem.) Roemer & Schultes

12907 27 June 1988.
AC obs. near Gorno-Altaysk
Autonomous Region. Basin of
the River Sema, shortly north of
Tupchaya
TUPCHAYA, ca 100km south southwest
of Gorno-Altaysk.

Altai Mts.
Moist, meadow-like community
with scattered *Larix sibirica*
~~1200m~~ at 1200m elev.
Single stemmed, fibrous-rooted
perennial Heads yellow.
Rays typically 8, sometimes
only 5. Leaves erect, glaucous.

Ligularia glauca (L.) O. Hoffm.

Ligularia altaica (3)

12008 27 Jan 1958

AC et al

Same place as 12007

stem solitary on a short
rhizome or crown. Flowers
pale lavender to white.

Geranium biflorum

12009 AC - 27 June 1934

USSR. Gorno-Altaysk Autonomous
Region. Altai Mts. in the
basin of the Ursul River, ca

120 km south-southwest of Gorno-Altaysk

Semi-open south slopes with
Larix sibirica 1550 m. elev.

Shrub, 1-1.5 m high. Flowers
white

Spiraea chamaedryfolia L.

(4) *Spiraea chamaedryfolia*
~~S. chamaedryfolia~~

28 June 79

12110- A.C. et al. USSR

Same place ~~12009~~

12009

Stems several on a compact,
fibrous-rooted base. Flowers
bright orange.

Trollius altaicus C.A. Meyer

Trollius altaicus (4) ✓

12111 AC Margarita Baranova
USSR. - Gorno-Altaysk
Autonomous Region - Altai
Mts shortly east of Yabegan
and ca 130 km south-southwest
of Gorno-Altaysk.
Climbing over Spiraea on
a ridge just north of a
major pass between the
Charyshskh and Ursul
River basins. Tepals 4,
white 28 June 1986
Elev. ca 1600m

Clematis sibirica (L.) Miller

Clematis *sibirica* (L.) Miller

12112 HCT Margarita Baranov

29 June 1988 On an open,
west-facing slope with dense,
low, herbaceous vegetation,

~~Larix sibirica~~ the
dominant tree nearby.

2-3 km north of a major pass
... etc as in 12111.

Elev. ca 1700 m.

Rays 36-58 (8 counts),
blue-lavender.

Yabogan Pass

Aster alpinus L.

3/4

Aster alpinus (3)

12/13 Act Margarita Barrios
28 June 1980 : Same place as
12/12

Elev. ca. 1700m.

Stems solitary on a short,
fibrous-rooted crown or
caudex. Leaves glaucous.
Filaments bright white,
narrowly petaloid

Thalictrum petaloideum

Thalictrum ~~petaloideum~~ (3)

12114 - 29 June, 1958

AC et al. USSR Gorno-

Altaysk Autonomous Region

Open moist places ca 3 km

east of Yabogay Pass.

Altai Mts. ca 130 km

South-southwest of Gorno-Altaysk.

Elev. 1300 m.

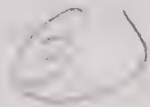
Freely branching, rather
brittle shrubs to 15 m. high.
Flowers white

~~12114 - 29 June, 1958~~

Sibiraea altaiensis (Laxm.)
Schneider

1300 m

Sibiraea altaensis



12115 - 29 June, 1988 AC &
Margarita Baccanova USSR
Gorno-Altaysk Autonomous
Region. Altai Mts.
Shortly southeast of Khabarovka,
and ca 130 km south of
Gorno-Altaysk.

Dry, open south slope,
amongst granitoid rocks
Flowers pink-lavender

Goniolimon speciosum
(L.) Boiss. ✓

Goniolimon speciosum (L.) Boiss.

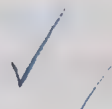
1216 22 June 1968


Act. Margarita Baranova.

Same place as 1215, but west slope.

Plants spreading by slender rhizomes. Flowers light greenish-yellow.

Galium coriaceum Bunge



Galium coriaceum 

1217-29 June, 1958 AC &
Margarita Barahona

Same place as 1215 - but
Open, granitic slopes
~~[no direction]~~.
Flowers lavender

Phlomis tuberosa L.

~~Flowers lavender~~

Phlomis tuberosa (3)

12118. 29 June 1958. +
Margarita Baranova
same place as 12116

Flowers white.

Campanula sibirica L.

Campanula sibirica L. 

12119- 30 June 1988. Alt
Margarita Baranov. USSR
Gorno-Altaysk Autonomous
Region. Altai Mts. 1200m,
elev. Semi-open places, with
Larix sibirica on a granitoid
ridge shortly southeast of
Khabarovka, and ca. 130km
south of Gorno-Altaysk.
Stems clustered, erect.
Flowers ochroleucous, almost
white.

Astragalus follicularis
Pallas

Astragalus

(2)

12120 30 June, 1968

A C + Margarita Baranov
Same place as 12119.

Flowers bright pink-
lavender

Centauria sibirica L.



3

12121 - 30 June 1983.

M. & Margarita Gerasimov

Same place as 12117.

Flowers sky-blue.

Eritrichium rupestre

(Pallas) Bunge, sens. lat.

(*M. subrupestre* M. Popov)



Eritrichium (3)

12122-36 June, 1968.

AC + Margarita Baranova

Open, well vegetated slope.

ca 1100 m. elev. otherwise

same place as 12119.

Leontopodium ochroleucum

Beauv.

var. *campestre* (Ledeb.) Grubov

Leontopodium

6
~~1717~~

12123-30 June, 1958. 4500 ft.

USSR. Gorno-Altaysk

Autonomous Region.

Overlooking the Katun River,

ca 160 km south of

Gorno-Altaysk. Altai Mts.

Sandy, gravelly, open hillside
slopes. 7000 ft.

Openly branching, spiny
shrubs ca 2 m tall.

Flowers yellow.

Caragana pygmaea (L.) DC.

Caragana pygmaea

(1)

12124 - 30 June, 1983. AC

et al USSR. Gorno-Altaysk
Autonomous Region. Altai Mts.
ca. 16 km. south of Gorno-
Altaysk. Elev. ca. 600 m.

Rock, mostly granite
including the katus
series. Rays ca 18-30,
blue-lavender

✓

Heteropappus altaicus
(Willd.) Novopokr.

ca-30+

Heteropappus altaicus ✓

12125-30 June 1955. *Monophylla* *Bavannua*.
USSR. Gorno-Altaysk Autono-
mous Region. Loose, sandy,
rocky slopes overlooking the
Katon River. Altai Mts
ca. 160 km. south of Gorno-
Altaysk Elev. ca. 6000.

Guldenstaedtia,
monophylla Fisch.



Herbarium

(2)

July 1, 1955 AC +
Margarita Baranova. USSR
Gorno-Altaysk Autonomous
Region, Altai Mts. Stony.
alluvial ridge between the
Katun and Chuya Rivers, ca.
160 ~~km~~ km. south of Gorno-
Altaysk. Elev. ca. 6000m.
Flowers bright lavender-
purple.

Scutellaria grandiflora Sims

Scutellaria grandiflora (2)
~~Hebe~~

12/27 5000 ft. above
Horseshoe Bend.

Same as above, but with
an additional dorsal stripe.
Pupils apparently 1 pair only.
belly ground turning white,
with reddish stripes outside

Convolvulus ammanni Desr.

Convolvulus (3)

12,28 1 July, 1958

Ac. Margarita Baranova
USSR - Gorno-Altaysk Auto-
nomous Region, Altai Mts.
ca. 160 km. south of Gorno-
Altaysk. Loose, stony, sandy
alluvial slopes just between
the Katun and Chuya Rivers.
Elev. ca. 600 m. Flowers
blue

Polygala tenuifolia
Willd.

blue

Polygala tenuifolia (L.)

12129 - 1 July, 1988 A.C.L.
Margarita Bazzani, USSR

Gorno-Altaysk Autonomous
Region. Altai Mts. ca 10 km
South of Gorno-Altaysk.
Elev. ca 1000m.

In the shade of scattered
Betula microphylla small
trees on west slope overlooking
the Chuja River. Rays
18-33 (6 counts). blue-
-lavender.

ca 30 km above its junction
with the Katun River.

Aster alpinus L.

Aster alpinus (L.)

1988

12130 - 2 July, 1988

USDA Forest Service
Tularemia Region, White Mts.

~~CA~~ South of Gorda-
Atayon. Elev. ca. 1000 m.

1000 m

a rather long stem (several
bushes) at the confluence of the Katura

~~into single stem~~ stem
solid at the base and short,
fairly slender rhizome

Ay-Gulak River

Veronica poz...
Paul

...
②

12131- 2 July 1988 A. C. &
Margarita Bazzana
USSR - Gorno-Altaysk Auto-
nomous Region, ~~ca~~ 12 km south
of Gorno-Altaysk.

Ulagunsky Pass
Moist southwest facing lime-
stone outcrop in Igarka
Park, Igarka Range of
the Altai Mts. Elev ca. 1825 m.
Flowers pink-lavender
to white
Valeriana officinalis L. ✓
Valeriana officinalis ✓

12132 - 7 July, 1988

A. & Margarita Baranova

USSR - Gorno-Altaysk

Autonomous Region, ~~ca~~

km south of Gorno-

Altaysk

Moist, hummocky meadow in
Igarka Park, Igarka
Range of the Altai Mts.

Elev. ca. 1575 m. Flowers

~~white~~ white. Anthers 2
plants with the odor of vanilla

Lagotis integrifolia (Willd.)

Schischkin

Lagotis integrifolia



12133 - 2 July 1988 ACL
Margarita Baranova

Same place as 12132.
Branching shrub 3-4 dm tall

Salix caesia Vill. ✓

Salix caesia

12134 - 2 July 1983. 40°N

Margarita Boronova. USSR
Gorno-Altaysk Autonomous
Region. Altai Mts. ~~ca~~ km
south of Gorno-Altaysk,
Edge of forest near
Sorulukel Lake, Igulatsky
Range. Elev. ca. 1850m.

~~Sorulukel Lake~~

plants forming mats as in
A. rosea etc. Staminate
bracts white, pistillate ones
pinkish

Antennaria dioica (L.)

✓ G. G. G.

✓ (1850m)

Antennaria dioica 'S

12135 - 3 July, 1988. AC. USSR,
Gorno-Altaysk Autonomous Region.
Altai Mts. ca 160 km south of
south-southeast
Gorno-Altaysk. Elev. ca 2500.

Rocky, cherted. Southeast slope
below open talus, ~~in~~ ~~the~~ ~~area~~
~~of~~ ~~the~~ ~~talus~~. ~~Small~~ ~~shrubs~~
Small shrubs 3-5 dm high, a mass
covering the slope. Leaves
shiny-resinous, especially on
the upper side.

Betula rotundifolia Spach

Betula rotundifolia (3)

12135. Same place as 12135
USSR. Same place as 12135

Forming loose tufts on
south-facing ~~thin~~ schistose
talus, ~~climatic~~ a dense
timberline. Flowers soft
yellow. Elev. ca 2500m.

Biebersteinia odora ~~Steph.~~
Stephan

Biebersteinia

(3)

12132 = 3 July, 1980 A.C.

Same basic place 12135.

Forming loose mats on meadow-

-like schistose slopes ~~to~~

below south-facing talus.

Catkins erect.

Salix rectijulis Ledeb.

Salix "rectijulis" (3)

12428 & 3 July 1953 - AC

at 1. 6. 1953. Gorno-

Altaysk. Autonomous Region -

Altai Mts., ca. 100 km.

South-southeast of Gorno-

Altaysk. and shortly north of

Aktash. Elevation 2000m.

On open, fairly steep slope above

timberline. Stems solitary or

sometimes 2 or 3 together.

Heads greenish yellow in bud,

the rays turning yellow on expanding.

The disk becoming orange.

Rays ca 13, or up to 21.

Senecio cymbalaria Pursh

Senecio cymbalaria Pursh

12139 - 3 July, 1988. AC et al.
USSR. Gorno-Altaysk Autonomous
Region. Altai Mts., ca 160 km
south-southeast of Gorno-
Altaysk, and directly north of
Aktash. Elev. ca. 2000m.

Open slopes ~~at~~ in a canyon
a little above the stream.

Macropodium nivale (Pallas)

R.Br.

✓✓

Macropodium nivale (P.)

12139^a

July 1950

Altai Margarita Baranova

USSR Gorno-Altaysk

Autonomous Region.

Altai Mts. ca 10 km south

southwest of Gorno-Altaysk,

and directly north of Ak-Tash.

Elevation 2600 m.

Open, stony slopes in the

subalpine zone. Shrub encroaching

Salix rectijulis Ledeb.

Salix

②

12450 4/2/1958 1000 ft. Baranov.

Same place as 12449

Flowers deep blue.

Corydalis pauciflora
(Steph.) Pers.



1241 - 4 July, 1988 ACT
Margarita Baranov.

USSR. Gorno-Altaysk

Autonomous Region, Altai
Mts, ca 160 km south-southeast
of Gorno-Altaysk and shortly
north of Aktysh. Elev.
ca 2000 m.

With *Larix sibirica* on *Pinus*
sibirica on southwest slope.

Shrubs with clustered stems
2-4 m tall.

Salix jenisseensis (F. Schmidt)

Floderus

Salix jenisseensis

121412-4 July, 1988. AC
Same place as 12141

Lax shrubs ca 1.5 m. tall

Lonicera caerulea L.

----- ✓
----- ✓

Lonicera ? (*caerulea*) (2)

12143 - 4 July 1955

AC Same place as
12141. Flowers yellow.

Scorzonera radiata
Fischer



Scorzonera radiata

12144 4 July, 1953 Act
Margarita Barro Colorado

Same place as 12141

Arborescent, several-stemmed
shrubs to 4 m tall, young
leaves with a reddish tint

Salix pyrolaeifolia Ledeb.



Salix pyrolaeifolia

(1)

12-4 July, 1955

Ac & Margarita Baranova

USSR Far East Altai Mts

10000 ft. Altai Mts

Elev ca 2050m

North slope, under Larix
schrenkii and Pinus schrenkii

Flowers dull pink, somewhat

Pyrola asarifolia Michx.



Pyrola asarifolia Michx.

12146 - 5 July, 1988 ACA
Margarita Baranova USSR,
Gorno-Altaysk Autonomous
Region, Altai Mts.
5100 m. ca 12000 m.

In fairly dry, slightly saline,
grazed meadow along the Chuya
River, a few km west of Ak
Tashy and ca 160 km south-
west of Gorno-Altaysk.

Flowers lavender

Astragalus adsurgens

Fallopia adsurgens

Moist - (2)

Astragalus adsurgens

12147 - 5 July 1938

S. G. Margarita Baranova

USSR - Gorno-Altaysk

Autonomous Region.

Altai Mts. ca 180 km South-
southwest of Gorno-Altaysk
rd. 2 km west of

Aktash. Steep, south-facing
scree-slope overlooking
the Chirchik River.

Elev. ca 1200 m.

Lagopsis merri-bastum

(Stephan J. Kohn - Gal.)

✓

scree

Lagopsis merri-bastum (5)

12148 - 5 July, 1956. M.E.
USSR Gorno-Altaysk Auton-
omous Region, Altai Mts. ca
160 km south-southeast of
Gorno-Altaysk and a few
km. west of Aktyash, Elev.
ca. 1400 m. —

In dense herbaceous and
low-shrubby vegetation on
west slope of a canyon.

Stems solitary from a
fibrous, rooted crown. Leaves
glaucous. Rays yellow (4) 5 (6)
Elev. 1400 m.

Ligularia altaica DC ✓

Ligularia

12149 - 5 July, 1988. A.C. &
Margarita Baranova USSR
Gorno-Altaysk Autonomous
Region. Altai Mts. ca

160 km. south-southeast
of Gorno Altaysk.

Steep, loose, south-facing
schistose slope overlooking
the Chuya River, a few km
west of Altash.

Flowers blue-purple.

Elevation ca 1200 m.

Orobanche caesia Reichenb.

Fls blue ~~purple~~ ✓

Orobanchaceae

12150 6 July, 1988 AC

USSR, Gorno-Altaysk

Autonomous Region.

Altai Mts. ca 160 km south of
Gorno-Altaysk. Drainage of
the Katun River, a few km
southeast of Kupchegen.

Open, steppe like south
slope. Elev. 1100 m.

Artemisia campestris L.

subsp. *borealis* (Pallas) H.M. Hall
+ Clements

Artemisia "borealis" (3)

12151 6 July 1953 NC

Same place as 12150

Flowers white to
ochraceous. Stems
loosely ascending.

Astragalus pycnanthus
Ledeburn



Astragalus ^{debilis}
debilis

12152 7 Aug 1950
+ 91. USSR Gorno-Altaysk

Autonomous Region, Altai.
Mts ca 90 km south-southwest
of Gorno-Altaysk, 10 km

W of the Sema River, not
far north of Zhetysay.

Fls. white, numerous
with yellowish green
Elev. ca 1500 m

Fls. pinkish

Bergenia crassifolia (L.)
Fritsch.

1950-1951
Bergenia

12123 7 June 2011
SSR (Sino-Asian)
Tulsa Co. Oklahoma
Same place as 12122
Lax shrubs ca 2-3 m.
Same place as 12121.

Vaccinium myrtillus L.

Loc.

very dry

(D)

2141 - 7 July 1958 AC 101
Same place as 12 132.
Flowers blue.

Myosotis silvatica Hoffm.,
sens. lat.
(*M. krylovii* Serg.)
✓

Myosotis silvatica (Hoffm.)

12156- 8 July 1988

A. C. & Margarita Baranova

USSR - Gorno-Altaysk

Autonomous Region.

Altai Mts. near Cherga,

Ca. 50 km southwest of

Gorno-Altaysk,

Open, rocky hillside

overlooking the Sema River

Elev. ca. 500 m.

Flowers dark blue.

Delphinium laxiflorum DC.

✓

Delphinium (3)

12157 9 July, 1988 AC
USSR Gorno-Altaysk
Autonomous Region Altai
Mts. ca 100 km southwest of
Gorno-Altaysk.

Gypsophila patrinii Ser.

On southeast-facing
schistose cliffs, ca 15 km
off

Plants half-shrubby at the
base. Flowers light
pink to red.

Gypsophila patrinii

12154 - 9 July, 1988 CMB

USSR. Gorno-Altaysk
Autonomous Region. ^{Altai} mts.

Pass at top of the Annisky

Range - not far from Mariinsky
village ca 100 km southwest
of Gorno-Altaysk

Annisky Range Elev.
1300 m.

Plants forming loose mats.

♂ bracts white

♀ bracts pinkish

Only ridge-top is bare
s, *Betula*, *Betula pumila* forest

Antennaria dioica (L.)
Gaertn.

Ant *dioica* (7)

12159 - 9 July, 1988 AC &
Margareta Baranova 9 JULY, 1988
Gorno-Altaysk Autonomous
Region, Altai Mts. ca.
100 km southeast of
Gorno-Altaysk.

Open, rocky (limestone)
but well vegetated slope
on the west side of the
Anniskiy Range.

Flowers nodding, colored,
white with a distinct
yellowish or greenish

Drainage of the Anay River
Larix sibirica the dominant tree
Onosma simplicifolium L.

Onosma simplicifolium L.

USSR, 1952
Gorno-Altaysk Autonomous
Region - Altai Mts. ca 100
km. southwest of Gorno-

Altaysk. Open but well
vegetated limestone ^{west} slopes
on the west side of the
Anzisky Range. Elev. ca 800
m. Flowers yellow.

Drainage of the Anzisky River
Lying beside the drainage line

Hypochaeris maculata L.

H. maculata L.

Asterophorus

12161 - 10 July 1983. AC
Gorno-Altaysk Autonomous
Region, USSR. Low meadow
along the Sema River
near Cherga, ca 45 km
southwest of Gorno-
Altaysk. Elev. ca 2150 m.
Shrubs ca 1-1.5 m. tall.
Flowers pink-lavender.

Myricaria alopecuroides
Schrenk.

✓

Myricaria alopecuroides (3)

Brilliant 85 → for AT
Pleasantry for AT

Swollen & Gabrielian
both need incantation
as formal participation.

Better if Utah can
pick up air from
NY. Cresslet can
handle Moscow → NY
and expenses in Utah

In the *Teraxacum*
ceratophorum group,
the scape arises laterally
instead of in the center of
the rosette

39437 at Laramie 20 AM

39845 at S.L.C 21 Sep 54

~~39845~~

40073 at Laramie 22 AM

40475 at Laramie 23 AM

40709 at Kreneshung Colo. 24 AM

41255 at Laramie 25 AM

41930 at S. Toledo 26 AM

41498 at Laramie 26 AM

33-34 days in Macleanville
in north side of Colo.

undulatus of undulatus
very in form, the 2d
evident but not strong.
spines to 7 or 8 mm

Flowers rich carmine
pink style top |
5 mm⁴⁺, 39.12
corolla 37 mm¹² almost
deepest sinus B. 5 mm¹⁴
throat ca 7 mm
9

stamens 34.1, 34.9
also nearly 13 mm.
narrow around 35.35
10.6 at 10 mm. Res.
10 at 10 G

achieve streamers to
brown 78 mm, tending
to be balise oblique

$$\begin{array}{r} 511 \\ \hline 969 \end{array} \quad \begin{array}{r} 5 \\ \hline 8 \end{array}$$

$2L + 8$



Thistle

34 N, 12 W, S. 32

Take road on to Mt. Tabor

Tabor hill, but right turn
(west) in main street
valley just south of
Diamond Butte

8

Aspen trees, rather
light brown, foliage - appears
definitely creeping below
ground - colonial only
3-8 in. tall, in cl. ca 3, 3.5
in height, 2 in thick cul.,
spike at center, brown
25+ in thick.

~~3000~~

1.58
—
2.2
63

3937

At Steens and opening
a gulch and suggesting
metamorphic impact;
but not all agree.
It's known that the gulch,
nearby, not all agree.
The gulch is probably
ca. 12. S. spectabilis

My Gila etc. compound
is 62 miles (100 km) south
of George, at 5900' (1800 m.)
in 35 N. 12 W. U.S. 28.

Airplane Reservation Rd
and down the river with
along a back of the river
river, just about 100 yds
25-30 miles to get north
road to Long Tent Creek
Road - BLM 4118
= 13 miles to get north
Airplane Reservation Road.
The air left west about
4:30 - 5 miles -

Cost of airplane
=

Q. sp. 42, 52 mg

Helianthus laevis

Aug. 2, 2, 2, 5, 4 mm

Colorado Flora: western slope

W. A. Weber

Colorado Assoc. Univ. Press

Boulder Colo. 1987

73.5 May 14 570
06.9 highway

503 754 4106

752 344

June 18 -

Se Malheur - Little

emphatic River - Little

Mc Dermitt

n 3

40 S, 46 E 5.1?

East of Anderson

crossing of Little cr. R.

Common along edged
intermittent streams

lichens comm.

64 0000 1000

36887.8 - ~~Cum gratia~~

37140 - Tampa 11 Sept

127 Goldfield

141.8 jct. #266

37289 Beekmantown - 12-18 Sept.

37521 - Golden Gate - 14-15

531.25 Mount. jct 4950

37772 - Larchmont - 14-15

968.7 d. jct. - 5 Sept

38089. L. Beacon 16

241.4 McDermitt

38414 - W. Lawrence - 17

38806 S. jct. - 18

on the leaves, three or four
in a wh. colored in
dark stripes, 1-2 in. tall

Leaves striped with brown.
The hairs not fully appressed
but all the same. Leaves
narrowed to a
subacute point, strictly
peristyle, veins of the point
straight, parallel, folded
along the midrib.
Leaf elongate, ^{greenish} yellow.
Leaves, slender, gradually
tapering to a long, many
narrow tips, somewhat
embellished. Rays 21,
3-3.5 in.

35682 at Meab. -

enc. 1 4 Sept. Friday

35.22 noted

2nd 35.22 5 Sept

102.0

on 10. 100

7-4.9 September

37.2 Gold Coast

10.52 " " "

35767 11.5. noted

96.3.2

802.05 10.10.10 10.10.10

843.6 10.10.10

35870.2 10.10.10

Seating Keelex

213-744-3378

~~693~~ 693-0771 x 423

AM 7:30-8:00

255-2761 9/15 7PM

908.0 jet 7 days

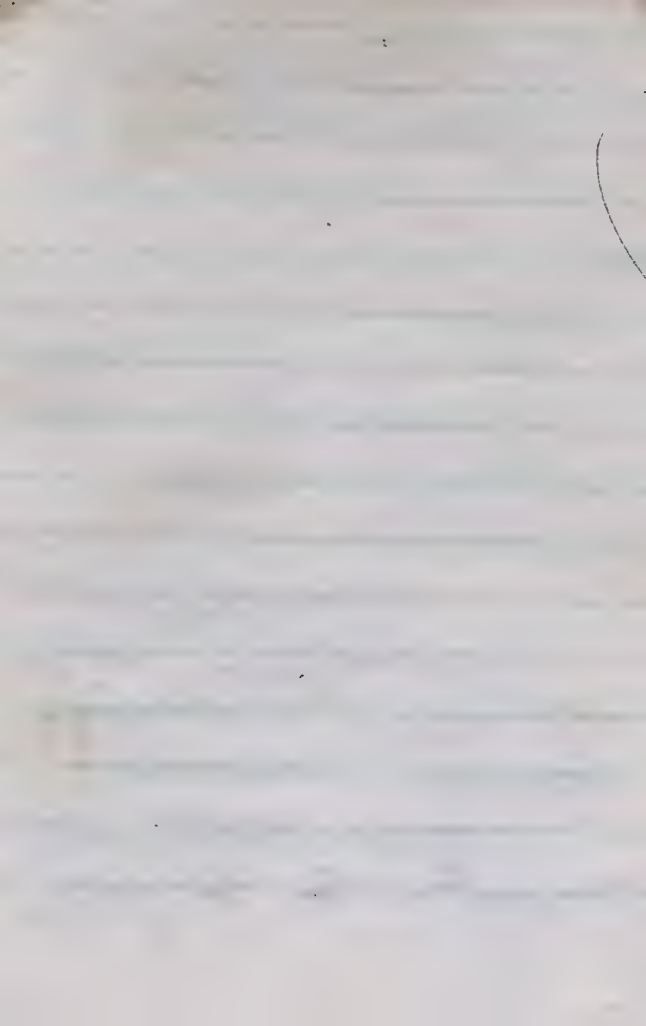
922 10000 jet

36104- Green Power

363410 S.L.C.

36031 - 10000

36710 - 10000
711



Pasture Las Sombras
three campers.

32398.1 - 1st Sept
32740 - 2nd Sept
33132.0 - 3rd Sept

33511 - 4th Sept
33958 - 5th Sept
34400 - 6th Sept

total 1:00

2.10

34641 - 7th Sept
On the 7th Sept
35000 - 8th Sept
35400 - 9th Sept
35800 - 10th Sept

36126 - 11th Sept
36500 - 12th Sept
36900 - 13th Sept

to the way over,
is called Realty
A missp

Q. alba. Lower surface of
young leaves rounded
with a thin, coarse, in-
slightly rusty stellate
tomentum, later pale
and glabrous

Artemisia floridana
is yellowish white, pubescent
in P. & C. Co., Ark.

Peckham, unpublished
serological studies on
Rhamnaceae, Celastraceae,
Hydrocarpaceae, & Grossula-
raceae. Whole publ.?

p. 233 of ms

(912). 9-17-55
Savannah, Ga. A. C. Brown
J. M. H. P. W.

The identity of
Q. mesocephalus and
Q. mesocephalus
revisited.

I hope you have had
very successful day,
I am glad to hear of your success
in your business.

Largest pine in the
valley he has any
number

N on 165 - first
road to the right
- 1 mile N. across canyon -
then at Brookshire's fork,
left turn Co., then
red light - Woodlawn -
crossroad - then next
red light - Hedgeway
Road - turn right
1/2 way black -

Q. missouriensis

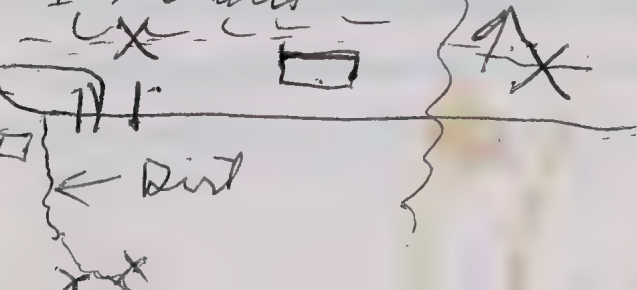
I. 1. 11

Take note *Arundinaria* to 10m.
Vicia tetrasperma with
4 or 5 seeds.

Lexington - left front,
Q. ogle - east side

Q. to mississippiensis
→ Lytle → marquette
lowlands of La. & Miss.

Lexington - Buffalo Creek
± 3-6 miles



Leucodermis - Crushed
tender, usually 2-1. Leaves
hairy, yellow-green
beneath - the leaf, or even
stem hairy

fl. white - small, weak
Leaves hairy, glaucous
beneath - hairy with
cynopium

Euphorbia - small, weak
Leaves hairy - small

Leucodermis - small, weak

Symplocos tinctoria L. S

Puberulent beneath - fls. yellowish
- lower clusters fls. with greenish

~~Laphemia intricata~~ Brantley
~~Sub Peridite~~

~~Chaenactis personii~~ Lep.
~~Sub Peridite~~

~~Palafoxia linearis~~ o. g. ~~g. g. g.~~
M. E. Jones Nit found

213-825-3619

Warren.

2000 1st, Oxnard
(2000) or 1st

500 1st

2000 1st 18

under, underpass, 18m

on left side of flat some

part, machine, a plot

thunder, 1st, 1st, 1st, 1st

1st, 1st, 1st, 1st

1st, 1st, 1st, 1st

1st, 1st, 1st, 1st

1st, 1st, 1st, 1st

~~Lomatium~~

~~sub L. ...~~

Lomat. fronic. ~~ssp. ...~~

~~Lomatium~~

~~sub Lomatium~~

Pseudodanum austriacum

sub Lomatium

Wyethia scabra var. attenuata

~~Peropsis scaposa~~

~~sub Euphorbia~~

Encelia frutescens fr. ...

Parthenium alpinum v. ligulare

Hemizonia purpurea ssp.

Strophostyles

~~Hulsea~~

~~Barleya~~

~~sub ...~~

Oenothera eximia sub

caespitosa - to sent at G.H.

Cornus sanguinea var. americana
to sent at G.H.

Euphorbia corollata Engelm.

~~sub. Psittaculopsis carolinensis at G.H.~~

Trigonotis dysodioides Jones

sub. periclyptera Jones

Laphamia palmata (L.) Tuckerm.

ME Jones sub. periclyptera

~~Laphamia gracilis (L.) Tuckerm.~~

~~sub. periclyptera~~

~~Laphamia fastigiata (L.) Tuckerm.~~

~~sub. periclyptera~~

Laphamia congesta (L.) Tuckerm.

sub. periclyptera

Oenothera exilis Pursh
sub *Commissaria* ex

Oenothera ~~var. *exilis* Pursh~~
sub ~~*Commissaria*~~

Oe ~~*minor* var. *minor* Munz.~~
sub ~~*Commissaria*~~

Sphaerostigma ~~*hallii* Gaudson~~
sub *Commissaria* *pallida*

Oenothera ~~*kernensis* Pursh~~
sub ~~*Commissaria*~~

Oe ~~*dentata* var. *gillmanii* Munz~~
sub ~~*Commissaria*~~, ~~*Reichenbachii*~~

G ~~*oxyphyllum* *humboldtii* *var. pallidum* *Munz*~~
sub ~~*Commissaria*~~

G ~~*oxyphyllum* *deciduum*~~

G ~~*oxyphyllum* *heterophyllum*~~

G ~~*var. *Commissaria* *var. pallidum**~~

sub ~~*Commissaria*~~

Deane's

~~Sub-Antarctic~~

~~Euphorbia pulcherrima~~
SAB = M. ...

~~Linear leucost. var. alpicola, Juss.~~
D. gairdneri sp. nov.

~~Allen~~ ~~21~~

Caryum montanum Blackwelder
Sub. Pseudomonas

Podiceps albicollis J. & S.
Sub. oreocephalus

Alcedo macdougallii sp. nov. *brunneus*
sub. *Cymopterus* niger.

~~Cymopterus abanquian~~
~~var. *abanquian* (n. sp.)~~

Cognellia cottoni Jones
sub *C. ovata* Penn.

Epilobium brevistylum

sub. *glandulosum*

Epilobium watsonii

sub *ciliatum*

Epilobium glaberrimum var. *latifolium*

Zauschneria arizonica

~~*Ge. caespitosa* var. *puberula*~~

~~*Ge. caespitosa*~~

~~*Ge. dettoides* var. *pipeni* f. *glabrata* Munz~~

~~*Ge. trichocelyx* f. *caucis*~~

~~*Ge. californica* ssp. *arctica* Kellogg~~

~~*Ge. confertiflora*~~

sub. *canis* *lanceolatus*

~~*Ge. scopoides* var. *torilis* Kellogg~~

sub *canis* *walkerii*

~~*Ge. macrocarpa* ssp. *sepioides*~~

4 - Plants usually
not flat topped;
standard sagittate
lower lvs,
" ~~not~~ *wyomingensis*

740 1000 1000 1000

117.6 1000 1000 1000

272.1 1000 1000 1000

301.5 1000 1000 1000

1. Succulent essentially
glossous (except sometimes
the outermost bracts,
shining yellow-green;
leaves minutely green dotted
in the tomentum; plants
typically small, 2-4 dm,
with a narrower inf.,
but sometimes 6 to 7+
dm and with somewhat
broader inf. *A. nava*.

1. Succulent + tomentose,
mostly gray; leaves
scarcely or not at all
green dotted.

2 - Low plants, mostly
2-4 dm, with
narrower infl.

G. integrifolia

2 ~~Montanely~~ Mostly
taller plants.

G. tridentata s. p.

3. Robust plants,

1-2 (3) m., mostly

large infl. trident

3. Less robust, often

with smaller

infl, to 1. (1.2) dm

4. Plants flat-topped,

+ smelling of

camphor; montane

or. evergreen.

Self + to 2 or 3
- 1 pl. house
- 1198

#52 6866
1 158

Stebbins 1957
Self p

Self p is reversible.
2 annual anthers,
derived from a northern
sp. One "large-bed"
radial to 10, the other
med to small bed - flat on

82 8 4 lin

88 5 14 53

165 spp. Equisetum

Quagracento
uppermost Cretaceous

801-277-0701 EN

375 3/81

John Cronquist

516 Moonbeam St.
Fullerton, Calif.

714-996-7915

Fern

5465 McGlashan St.

Sacramento, Calif. 95820

916-455-8037

Valerie + Bill 801-245-3048

Weish - home

801-225-1085

Marian

4318 E. Broadway, L.B.

213-433-3703

70803

John Cronquist

516 Moonbeam St.

Fullerton, Calif.

714-996-7915

Fern

5465 McGlashan St.

Sacramento, Calif. 95820

916-455-8037

Valoie + Bill 801-245-3048

Welsh - home

801-225-7085

Marian

4318 E. Broadway, L.B.

213-433-3703

70803

49
212-772-4807

397 L. ...

0000000000000000

39-

2 out

14

25 49 32 nd. St.

at Bury.

noon

Нахружен внес

1020 220